

## "Limits, between product and project of the territory"

Vanneste, Guillaume

### Abstract

The paper has been presented at the VIII International PhD seminar U&U "The Horizontal Metropolis: a radical project", which took place at EPFL Lausanne on 12,13,14 October 2015.

Document type : *Communication à un colloque (Conference Paper)*

## Référence bibliographique

Vanneste, Guillaume. *Limits, between product and project of the territory*. The Horizontal Metropolis VIII International PhD Seminar 'Urbanism & Urbanization' | Symposium Latsis EPFL 2015 (Lausanne, du 12/10/2015 au 14/10/2015). In: *The Horizontal Metropolis : A Radical Project VIII International PhD Seminar 'Urbanism & Urbanization' | Symposium Latsis EPFL 2015 : Conference Proceedings*, 2015

# THE HORIZONTAL METROPOLIS: A RADICAL PROJECT

VIII INTERNATIONAL PHD SEMINAR 'URBANISM & URBANIZATION' | SYMPOSIUM LATSIS EPFL 2015



LAUSANNE | 12, 13, 14 OCTOBER 2015

Conference Proceedings



# THE HORIZONTAL METROPOLIS: A RADICAL PROJECT

VIII INTERNATIONAL PHD SEMINAR 'URBANISM & URBANIZATION' | SYMPOSIUM LATSIS EPFL 2015

© UU2015

**ISBN** 978-2-8399-1747-6

<http://lab-u.epfl.ch>

## EDITORS

Martina Barcelloni, EPFL Lausanne  
Chiara Cavalieri, EPFL Lausanne

## SCIENTIFIC COMMITTEE

Paola Viganò, EPFL, Università IUAV, Venezia (chair)  
Cristina Bianchetti, Politecnico Torino  
Stephen Cairns, Future Cities Lab, Singapore  
Elena Cogato Lanza, EPFL  
Michiel Dehaene, U-Gent  
Bruno de Meulder, KU Leuven  
Alberto Ferlenga, Doctorate School, Università IUAV, Venezia  
Vincent Kaufmann, EDAR, EPFL  
Sébastien Marot, Paris Marne-la-Vallée  
Brian McGrath, Parsons The New School for Design  
Han Meyer, TU Delft  
Dominique Rouillard, ENSA Paris-Malaquais  
Joaquim Sabaté, UPC Barcelona  
Saskia Sassen, Columbia University  
Kelly Shannon, University of Southern California  
Charles Waldheim, GSD Harvard

## ORGANIZING COMMITTEE

Farzaneh Bahrani  
Martina Barcelloni Corte  
Chiara Cavalieri  
Marine Durand  
Valérie Pahud  
Roberto Segal  
Matthew Skjonsberg

## CONTACT

uu2015@epfl.ch  
EPFL, ENAC, IA, LAB-U  
Station 16  
CH-1015 Lausanne

## DISCUSSANTS

Tom Avermaete, TU Delft  
Peter Baccini, ETH Zurich  
Martina Barcelloni, EPFL Lausanne  
Cristina Bianchetti, POLITO Torino  
Mary Cadenasso, University of California, Davis  
Stephen Cairns, ETH Zurich, Future Cities Lab  
Chiara Cavalieri, EPFL Lausanne  
Kees Christaanse, ETH Zurich  
Elena Cogato Lanza, EPFL Lausanne  
Olivier Coutard, ENPC, Paris  
Michiel Dehaene, U-Gent  
Giacchino Garofoli, Università degli Studi Insubria  
Christophe Girot, ETH Zurich  
Groesjan Bénédicte, ENSAP Lille  
Kaufmann Vincent, EPFL Lausanne  
George Lin, University of Hong Kong  
Panos Mantziaras, Fondation Braillard Architectes Genève  
Sébastien Marot, EPFL Lausanne  
Catherine Maumi, Grenoble  
Brian Mc Grath, Parsons The New School for Design, New York  
Vincent Nadin, TU Delft  
Luca Pattaroni, EPFL Lausanne  
Yves Pedrazzini, EPFL Lausanne  
Jason Rebillot, Woodbury University Los Angeles, USA  
Dominique Rouillard, ENSA Paris-Malaquais  
David G. Shane, Columbia University, New York  
Thomas Sieverts, Technical University Darmstadt  
Adolf Sotoca, UPC Barcelona  
Maria Chiara Tosi, IUAV Venice  
Els Verbakel, Bezalel Academy of Arts and Design, Jerusalem  
Paola Viganó, EPFL Lausanne - IUAV Venice  
Charles Waldheim, GSD Harvard, Cambridge

## “The Horizontal Metropolis”: a radical project

The general theme for the 2015 U&U<sup>1</sup> Seminar is “*The Horizontal Metropolis: a radical project*”. Horizontal Metropolis is both an image and a concept, it is a lens through which to view the form of the contemporary city, conceptualizing it and constructing it as a project. It refers to a specific spatial condition characterized by a horizontality of infrastructure, urbanity, relationships, and by closely interlinked, co-penetrating rural/urban realms, communication, transport and economic systems. Contemporary urban figures such as *Città diffusa* in Northern Italy, *Desakota* in Asia or *ville horizontale* in Africa, fine grained settlement dispersion in Flanders, or *Zwischenstadt* in Germany are just some of the examples able to effectively describe this emergent urban condition, increasingly related to the dispersion of the urban fabric within the agricultural landscape. The Horizontal Metropolis concept considers these figures as beyond a simplistic center/periphery opposition, revealing the dispersed condition as a potential asset, rather than a limit, to the construction of a sustainable and innovative urban dimension.

Historically this specific spatial condition has provided test cases for the elaboration of original urban theories. Today the radical nature of the change underway is forcing these territorial constructions to face new challenges, paradoxes and crises, from a social, economical and environmental point of view.

The fundamental hypothesis of both the Seminar and of the Symposium is that the Horizontal Metropolis, as spatial capital and agent of transformation, may be supportive of a radically innovative urban and territorial project - and thus considered as an original urban ecology.

The U&U International PhD Seminars and the 2015 Latsis Symposium will investigate the “Horizontal Metropolis”, its space, its traditions, and its contemporary relevance as an energetic, ecological and social design framework. The dual aim of the event is to connect the specific questions arising in different urban contexts to larger international reflections and processes, and to valorize a multidisciplinary approach in discussing the Horizontal Metropolis.

### - Three Sessions

The symposium intends to investigate the Horizontal Metropolis through three main fields of research:

#### *1 The Horizontal Metropolis: spatial and natural capital*

Different types of urbanity can be analyzed and compared starting from their measures, which are often the expression of deeply embedded rationalities. The session will concern those rationalities, such as: water management (natural systems, irrigation, drainage, drinkable water supply, waste water, energy); the productive landscape (qualities of soil, parcels and property size, presence of biodiversity, types of agriculture, mix of functions); accessibility (mobility networks, permeability and connectivity, exchange nodes, social infrastructures and amenities), potential and abilities of individuals and firms to move and to locate. The session will critically reflect upon the horizontal metropolis as a city-territory; the relation between natural and artificial rationalities; hybrid urban-territorial figures in relation to conditions of spatial and social justice. The objective of the session is to understand the different rationalization processes of the city-territory through an investigation of its measures, patterns and elements of coexistence. This session will focus on mapping, comparisons, typological reading, and environmental, social and urban analyses.

#### *2 The Horizontal Metropolis: issues and challenges of a new urban ecology*

In recent decades the city-territory has become a recognized and explicit object of policies and design: in academic research, but also in broader contexts where the awareness of this spatial, economic and social configuration is more mature. This session will critically reflect upon the radical nature of the changes underway and the emergence of new urban paradigms; scenarios and design strategies for re-cycling and upgrading the city-territory. The Horizontal

---

<sup>1</sup> The 8th edition of the U&U International PhD Seminar will be managed under the scientific direction of the Laboratory of Urbanism (Lab-U, EPFL) with the support of EDAR, EPFL's Doctorate School and Latsis Foundation.

Since 2004, the biannual U&U seminar has been inviting PhD candidates working on theory, history and practice of urbanism to present, confront and discuss themes and approaches coming from different PhD programs. The first seminar was organized by OSA-KU Leuven in February 2004 and was followed by others organized by UPC Barcelona, IUAV Venice, TU Delft and Ecole Nationale Supérieure d'Architecture Paris-Malaquais. U&U International PhD Seminars seek to promote the exchange of ideas, provoke debate amongst researchers, invite comparisons, cross-pollinate different disciplines and highlight the latest ongoing research topics. It is a rare opportunity offered to young researchers to meet with prominent scientists and build a critical argument.

Metropolis as a renewable resource will be the main hypothesis of the session. Proposals that investigate forms of order strengthening horizontal relations, as distinct from standard hierarchical forms, will be supported. In a space where polarization and hierarchization processes are weakening horizontal networks – disconnecting or marginalizing territories and populations - the Horizontal Metropolis challenges dominant paradigms. This session will focus on scenarios, concepts and prototypes.

### *3 The Horizontal Metropolis: a transcultural tradition*

The Horizontal Metropolis has come to the fore at different times throughout the history of city and territorial design. A thick legacy of concepts and of interpretations of urban phenomena through projects has been accumulated. This legacy is also the result of influences and exchanges among the main authors and among situations and interpretations in very distant parts of the world. The final session of the symposium intends to elaborate and investigate the role of exchanges and references in constructing, by integration or differentiation, various conceptions of these urban phenomena. This session will focus on theories, images, and archives.

With the help of ongoing research and contributions from the participating universities, the Seminar and the Symposium aim at documenting and discussing the changes underway in urbanism and the urban condition. A wide variety of research forms and interdisciplinary approaches such as urban analysis, design research, case studies and theoretical elaborations, are expected to nurture and to critically develop the theme.



## Session1\_The.Horizontal Metropolis: spatial and natural capital

<b>Hidden forest figures in the Horizontal Metropolis: from placeholders to micro-biotopes. The case of Liedekerkebos.</b> Wim Wambecq, KU Leuven	9
<b>Another use of agricultural soil in the Horizontal Metropolis A micro-story of soil from the Russian Chernozem to the Valley Section</b> Marine Durand, Laboratory of Urbanism, EPFL	26
<b>Subsurface Mining and Surface Urbanization: Disturbed Ecologies requiring Rebalancing</b> Patrycja Perkiewicz, Oslo School of Architecture & Design, Norway	35
<b>From Paradise to desert – Reclaiming the role of garden in Isfahan’s New Towns interplay with energy drivers</b> Azadeh Badiee, KU Leuven	41
<b>Retracing Water Flows in Southern Italy</b> Irene Toselli, Università IUAV Venice	55
<b>The maipo’s canals as a revealed urban matrix for Santiago de Chile</b> Sandra Iturriaga Del Campo, Universidad Católica de Chile	66
<b>Section across the horizontal field: a case study of the asymmetrical condition of Bogotá’s periphery</b> Claudia Lucia Rojas, KU Leuven	73
<b>Challenging the paradigm of garden suburbs in Argentina: the urban micro-densification as emergent revitalization process in the suburbs of Córdoba</b> Sara Maria Boccolini, Bauhaus Universität-Weimar / Universidad Nacional de Córdoba (SECyT)	86
<b>Daily journeys within the Metropolitan territories. Reflections on the experience lived by the suburban transport network’s users in Paris and Milan.</b> Priscillia Jorge, Lab’Urba, Ecole d’Urbanisme de Paris – Université Paris-Est – DASTU Facoltà di architettura e società - Politecnico di Milano	100
<b>Innovation and Urban Mobility. European Industry’s Technical Experimentation and Transformation of Cities: 1963/1973 – 2001 – 2008 – 2020/2030</b> Marika Rupeka, Laboratoire Infrastructure Architecture Territoire, ENSA Paris-Malaquais	108
<b>The analysis of ‘highway objects’: a new way to explore the city-territory.</b> Francois Bruneau, Laboratoire Architecture Anthropologie, LAA, Paris	112
<b>Preliminary analysis of the structural properties of the global roads network and its scaling with Gross Domestic Product for all countries.</b> Emanuele Strano, Saray Shai, Laboratory of Geography Information Systems (LaSig), EPFL	117
<b>The Impact of Road Ecosystem upon Soils’ Qualities and Functions: Preliminary Observations on the French Normative Framework of Road Design</b> Antoine Vialle, Laboratory of Urbanism, EPFL	121

<b>Horizontal Metropolis structured by the nature</b> Josué Ochoa Paredes, UPC-BarcelonaTECH	128
<b>Limits, between product and project of the territory</b> Guillaume Vanneste, UCLouvain (université catholique de Louvain) Faculty of Architecture, Architectural Engineering and Urbanism - LOCI	146
<b>Territory: a Common Home. Inventing a common ground</b> Nuno Travasso, CEAU-FAUP Centre for Studies on Architecture and Urbanism, Faculty of Architecture, University of Porto	153
<b>Urbanisation and the Provincial Projects of Electrification in Belgium</b> Dieter Bruggeman, Department of Architecture and Urban Planning, Ghent University	166
<b>Urban fissures as the outcome of enclaved condominiums, artificial topographies and repression: the case of Pampulha, Belo Horizonte</b> Patricia Capanema Alvares Fernandes, KU Leuven	178
<b>Interplays of Infrastructure and Space - Metamorphoses as urban architecture in the megacity of São Paulo</b> Sarah Hartmann, Department of Urban Design and Planning, Faculty of Architecture and Landscape, Leibniz Universität Hannover, DE	192
<b>Horizontality reconsidered. Contesting (re)densification from Guadalajara's edge</b> Luis Angel Flores, KU Leuven	200
<b>Abundance of interplays delivered by scattered patterns of occupation. San Joaquin in Cuenca, a case of study in the southern highlands of Ecuador</b> Monica Rivera Muñoz, KU Leuven	210
<b>The urban nodes of the horizontal metropolis: an empirical account from Mumbai's incrementally developing neighbourhoods</b> Tobias Baitsch, LASUR, EPFL	224
<b>Is Vertical Agglomeration the New Horizontal Urbanity of Asian Megacities? Mapping the Morphological Consequences of Proliferating Private Enclaves Shaping the Urban Landscape of Seoul</b> Soe Won Hwang, Graduate School of Environmental Studies, Department of Environmental Planning, Seoul National University	232
<b>Elements in Desakota</b> Qinyi Zhang, IUAV Venice	243
<b>Reaching the sea: Guangzhou southern expansion from rural industrialization to polarized strategical planning</b> Edoardo Bruno, Polytechnic of Turin	256
<b>Volumetric Moments of the Horizontal: What is the Potential of Dispersion?</b> Michael Doyle, Laboratory of Urban and Environmental Economics, EPFL	268

## Session 2\_The Horizontal Metropolis: issues and challenges of a new urban ecology

### **Curated Routes: the notion of routes as a design tool for the conception of urban environments in Belgium**

Maximi Papathanasiou, Department of Architecture & Urban Planning, Ghent University 278

### **Walkability After the Car; looking into low-density urbanity**

Farzaneh Bahrami, Laboratory of Urbanism, EPFL 283

### **The verticalization of the transport system in Veneto metropolitan area**

Alvise Pagnacco, IUAV Venice 291

### **Infrastructure as a “renewable resource”: re-cycling artificial rationalities in Limburg**

Matteo Motti, DASTU – Dipartimento di Architettura e Studi Urbani, Politecnico di Milano 298

### **Centralization, decentralization, and metropolization: cultural attractors in Brussels metropolitan area**

Yannick Vanhaelen, ULB, Faculty of Architecture La Cambre-Horta, Laboratory for Urbanism, Infrastructures and Ecologies (LoUIsE), Brussels 308

### **From the district to the city. Back to Sassuolo – Actions for a Changing Industrial Territory**

Cristiana Mattioli, DASTU, Politecnico di Milano 320

### **Productive ecologies: Redefining the centrality and marginality of the city-territory**

Roberto Segal, Laboratory of Urbanism, EPFL 331

### **What is happening to Industrial Districts?**

Michele Cerruti But, IUAV Venice 340

### **After tomorrow, A design approach to reevaluate wastelands in the city-territory: the case of Charleroi and Veneto region**

Cecilia Furlan, IUAV Venice / KU Leuven 345

### **RE-CYCLES. Transnational revitalization of dismissed industrial brownfields in post-socialist cities along the Danube**

Alberto Verde, University of Ferrara, Department of Architecture – Polis University in Tirana 356

### **Understanding the city as home-made: mapping 2nd and 3rd generation perspectives on urban consolidation in fragmented urban dwelling landscapes in Guayaquil, Ecuador**

Olga Peek, KU Leuven 368

### **Tracing the horizontal structure of Athens. From the horizontal structure to the imposed rational “modernization” and the new claims for a social and productive reconstruction**

Olga Balaoura, IUAV Venice 377

### **A Neighborhood Welfare: the example of “Case di Quartiere” in Turin**

Simone Devoti, IUAV Venice 380

### **Affect as Spatial Affordance of Urban Difference**

Dario Negueruela, Atelier de la conception de l'espace, EPFL 389

<b>Transition and scales Enhancing horizontality for a bottom-up/top-down scalar integration. The case of the <i>Estero Salado</i> in Guayaquil, Ecuador</b> Giulia Testori, IUAV Venice	396
---	-----

### Session 3\_The Horizontal Metropolis: a transcultural tradition

<b>METRICS OF UTOPIA Optionality, Aesthetics and Patrick Geddes' Ideal of Synoptic Utopia</b> Matthew Skjonsberg, Laboratory of Urbanism, EPFL	409
<b>Adieu compact city The Dutch case study and the discovery of the patchwork metropolis</b> Carlo Pisano, University of Cagliari – DICAAR –Architettura	416
<b>Re-orienting the horizontal. Welfare figures and discourses around Brussels (1960-2015)</b> Verena Lenna, IUAV Venice, KU Leuven	426
<b>Unlocking the potential of collective spaces in the peri-urban condition. Defining a theoretical framework and exploring intervention strategies for the horizontal metropolis: the case of South-West Flanders</b> Gheysen Maarten, KU Leuven	433
<b>Berlin dispersed: a genealogy of ideas</b> Laura Veronese, IUAV Venice	443
<b>Spatial Practices and Aesthetics. The Example of Switzerland</b> Mirza Tursic, Chôros Laboratory, EPFL	452
<b>Typologies That Made Us: Modernization and Horizontality in the Case of Vojvodina</b> Aleksandar Bede, IUAV Venice	459
<b>The 'other' horizontal metropolis: Exploring the 'operational landscapes' of planetary urbanization</b> Nikos Katsikis, Harvard Graduate School of Design	467
<b>Unbounded urbanization and the Horizontal Metropolis: the pragmatic program of August Mennes in the Antwerp agglomeration</b> Tom Broes, Michiel Dehaene, University of Ghent	483
<b>Doomsday Urbanism: Planned Dispersion and Nuclear Threat in Postwar America</b> Ludovico Centis, IUAV Venice	496